

**REMARKS**

Claims 1-8, 19, 20, 22 and 23 stand rejected under 35 U.S.C. §112, 2<sup>nd</sup> ¶ as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 15, 19, 20 and 23 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Orban et al. (U.S. Patent No. 6,353,577; hereinafter referred to as “Orban”). Claims 1, 2, 7, 9, 10, 12, 14-16 and 22-23 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Fort (U.S. Patent No. 4,320,472). Claim 15 stands rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Donoho et al. (U.S. Patent No. 5,189,642; hereinafter referred to as “Donoho”). In addition, claims 1-15 and 18-26 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Orban in view of Ward (U.S. Patent No. 4,152,691). Applicant respectfully traverses the rejections of claims 1-15 and 18-23.

**Rejections Based Upon 35 U.S.C. §112, 2<sup>nd</sup> ¶**

Independent claims 1, 19, 22 and 23 have been amended to remove the “appears like” language. Therefore, Applicant respectfully request the withdrawal of the §112, 2<sup>nd</sup> ¶ rejections of claims 1-8, 19, 20, 22 and 23.

**Rejections Based Upon 35 U.S.C. §102(b) and 35 U.S.C. §103(a)**

Claims 1, 9, 15, 19 and 22-24 have been amended to include Applicant’s previously unclaimed feature, i.e. that transmitted digital data includes surface, velocity and elevation data.

With respect to claims 11 and 15, none of the cited references teach or suggest a control signal that is transmitted from another receiver. The current Office Action does not address this feature of Applicant’s claimed subject matter. Applicant believes that this feature provides, among other things, the ability to provide cascading control signals such that a first receiver can signal a second receiver when the first receiver is through transmitting its data. In this manner, conflicts and delays in the transmission of data are avoided without the use of a centralized control structure.

The current Office Action also does not address features claimed in claims 24-26. Claims 24-26 were added to focus on a disclosed and previously unclaimed feature that Applicant believes is novel, i.e. a test circuitry coupled to the seismic energy detector such that the seismic

energy detector can be directly stimulated for testing and calibrating the detector as well as for testing the detector's verticality. Although Orban shows a test circuit, Orban's test circuit is not coupled to the seismic sensor and thus can test only the feedback module and components that are upstream of the feedback module.

As stated in the previous Response, regarding the rejections of dependent claim 2, 11, 14 and 20 under 35 U.S.C. §103(a) over Orban in view of Ward, Ward can not be combined with Orban to suggest co-hosted control circuits because Ward has a centralized control circuit that services groups of sensors rather than individual sensors. For example, in Ward's Fig. 2, a **sensor group** 12 goes to A/D, which is shown as containing amplifiers, and control. It should be noted in Fig. 2 that Receiver 34 is not a seismic receiver but a receiver for receiving a signal from Ward's central control. Therefore, Ward can not be combined with Orban to teach or suggest a control within Applicant's casing because this is impossible with a centralized control structure such as Ward's. In other words, control can be either centralized for groups of seismic sensors or co-located in the casing with individual sensors, but not both. Fort also suffers from the limitations of Ward, i.e. control is centralized in a recording truck (Fig. 10) rather than in the seismic receiver itself.

In addition, there is no motivation to combine Ward and Orban. Improved S/N, reduction in the number of sensor units, and power management as well as better quality signals, lower price and ease of placement are recitations of advantages rather than motivations to combine references.

With respect to claim 21, the prior art neither teaches nor suggests a printed circuit board (PCB) that can be folded.

For the reasons stated above, Applicant contends that independent claims 1, 9, 15, 19, 22, 23 and 24 are allowable and respectfully request that the rejections be withdrawn. In addition to reasons stated above, dependant claims 2-8, 18, 20 and 21 are allowable because they are dependant upon allowable base claims and Applicant requests these rejections be withdrawn as well.

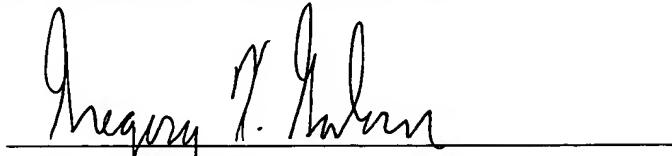
It is believed that no fee is due with the filing of this Response. However, if there are any fees associated with the filing of this Response, the Commissioner is hereby authorized to charge or credit any overpayment to the deposit account of Hulsey, Grether, Fortkort & Webster, LLP, Deposit Account No. 50-2726.

Respectfully submitted,

HULSEY GRETHON + FORTKORT, LLP

Dated: July 26, 2004

By:



Gregory K. Goshorn  
Reg. No. 44,721  
8911 N. Capital of Texas Hwy., Suite 3200  
Austin, Texas 78759  
Telephone: (512) 279-3100  
Facsimile: (512) 279-3101